

## Evolution of the Department

Department of Physics & Electronics stands tall today with nearly six decades of experience, growth, confidence and vision. It has aims and aspirations soaring high into challenging future. The united effort of the department cuts the woods easily, makes the journey of progress smooth and steady and continue to strive to improve each day. The Department is fortunate to have had Mr.D.Anji Reddy who was bestowed with Telangana Government's Best Teacher Award -2016

1964 → Started with Pre-university course affiliated to Osmania University.

1972 → Intermediate courses with MPC & BiPC were added in

1986 → U.G (B.Sc.) with Physics started with MPC

1992 → Electronics course with MPE started at UG level

2000 → Started the combinations MPCs & MECs at UG level

2006 → **P.G (M.Sc) Physics with Electronics & Instrumentation specialization**

### Vision

Foster the spirit of inquiry in the students to expand their potential and enhance their intellectual growth to the highest possible levels of academic achievement.

### Mission

Encourage and equip the students with diverse abilities to pick and analyse by keenly observing the nature through the lens of physics. Impart education through adoption of methods that create interest, stimulate curiosity and inculcate critical and independent thinking essential for pragmatic learning. This is proposed to be accomplished through interactive teaching, arranging guest lectures and organizing relevant field visits that uncover the minds of students. The scientific fervour thus acquired is expected to facilitate the students in choosing to pursue higher education in physics and electronics as well as in interdisciplinary areas.

## Faculty Profile

S.No	Name of the Faculty	Designation	Qualification	Years of Experience
1.	V.Anuradha	Assoc. Prof & HOD	M.Sc.	29
2.	Dr.E.Rukmini	Assoc. Prof	M.Sc, B.Ed., Ph.D.	24
3.	K.Vijaya	Assoc. Prof	M.Sc.	17
4.	S.Gayatri	Guest Faculty	M.Sc, M.Phil	

### **Anuradha Budaraju, M.Sc**

Associate Professor

Head, Department of Physics & Electronics

29 years of Teaching Experience

Email: [anubmurthy@gmail.com](mailto:anubmurthy@gmail.com)



### **Achievements**

**Completed the following online courses offered by SWAYAM / NPTEL**

- Appreciating Carnatic Music with Elite + silver
- Effective Writing” with Elite + silver and All India topper

**Completed the following online courses conducted by Center for Continuing Education, IIT, Kanpur:**

- Classical Electromagnetism II (15/08/2022 to 25/12/2022)
- Story of Photoelectric Effect (15/07/2021 to 17/08/2021)
- Classical Mechanics I (26/01/2021 to 25/04/2021)
- Learning Physics through Simple Experiments (2/04/2020 – 19/06/2020)
- Basics of Special Theory of Relativity (18/12/2018 to 08/03/2019)
- Physics of Semiconductors (15/08/2017 to 20/11/2017)

### **Other Activities:**

- **Member of Board of Studies-Physics** Bhavan’s Vivekananda College, Sainikpuri, Secunderabad, 2019–21
- **Co-author** of intermediate Physics Textbook published by TOSS, HYD
- **06-11-2023 to 15-11-2023** : Attended UGC-Sponsored Online NEP Orientation & Sensitization Program Organized by UGC-MMTTC, OU ,Hyderabad
- **Editor** of quarterly newsletter **Photon**, published by the Department of Physics & Electronics , 2021 to date
- In-charge of **Sangeet Vanita** (Music club)
- **Resource person** of FDP, conducted by IQAC, SNVMV

- **Chaired** the technical session of **5th Pure earth environment** conference
- **Coordinator**, NAAC criterion 7
- Examination paper setter and evaluator for autonomous colleges

**K. Vijaya, M.Sc**

Assistant Professor

17 Years of Teaching Experience

Email: [kasturi.vijaya05@gmail.com](mailto:kasturi.vijaya05@gmail.com)



**Achievements:**

**Completed the following online courses offered by SWAYAM / NPTEL**

- Microprocessor and Interfacing with Elite (Jan-Apr 2021)
- **12-10-2023 to 21-10-2023** : Attended UGC-Sponsored Online NEP Orientation & Sensitization Program Organized by UGC-MMTTC, OU ,Hyderabad

**Other Activities:**

- Worked as Student Advisor
- **Member**,NAAC criterion 4

**Dr. E.Rukmini, M Sc , B.Ed, Ph.D**  
Associate Professor  
24 years of Teaching Experience  
E-mail: [erukmini1510@gmail.com](mailto:erukmini1510@gmail.com)



### List Of Publications

1. Crystal free-ion energy level analysis of  $Er^{3+}$  in various crystal hosts-oxygen coordinated systems **E.Rukmini**, A.Renuka Devi , C.K.Jayasnakar PHYSICA B 193 (1994)
2. Optical properties of  $Tm^{3+}$  ions in Zinc borosulphate glasses and comparative energy level analyses of  $Tm^{3+}$  ions in various glasses ,**E.Rukmini**, C.K.Jayasnakar, Journal of Non – Crystalline Solids . 176 (1994)
3. Spectroscopic properties of  $Ho^{3+}$  ions in Zinc borosulphate glasses and comparative energy level analysis of  $Ho^{3+}$  ions in various glasses. **E.Rukmini**, C.K.Jayasnakar Optical materials (1995)
4. Correlation crystal field analysis of  $Nd^{3+}$  energy level structures in various crystal hosts. **E.Rukmini**, C.K.Jayasnakar and M.F. Reid, Journal of physics : Condensed Matter . 6 (1994 )
5. Comparative crystal free – ion energy level analysis of  $Nd^{3+}$  ions in various oxygen coordinated systems , **E.Rukmini**, C.K.Jayasnakar PHYSICA B (1995)
6. Comparative analysis of free- ion energy levels of  $Er^{3+}$  in various crystal hosts. C.K.Jayasnakar , A.Renuka devi and **E.Rukmini** M.F. Reid. Journal of alloys and compounds 193 (1993)
7. Crystal free ion energy level analysis of  $Er^{3+}$  in various crystal hosts.1. Halids and Garnet systems, A. Renuka Devi, **E.Rukmini** and C.K. Jayasankar Physics Stat . Sol (a) 131. (1992)

**Completed the following online courses conducted by Center for Continuing Education, IIT, Kanpur:**

- Classical Electromagnetism II (15/08/2022 to 25/12/2022)
- Story of Photoelectric Effect (15/07/2021 to 17/08/2021)
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- Basics of Special Theory of Relativity (18/12/2018 to 08/03/2019)
- **12-10-2023 to 21-10-2023** : Attended UGC-Sponsored Online NEP Orientation & Sensitization Program Organized by UGC-MMTTC, OU ,Hyderabad

### Books Published:

1. **Co-author** of B.Sc IV Sem (II year) physics Textbook, published by Telugu Academy
2. **Co-author** of intermediate Physics Textbook published by TOSS, HYD

### Other Activities:

- **Member**, NAAC criterion 1
- **Resource person** for workshop on Experiments in Nuclear Physics, organised by Department of Physics & Electronics, SNVMV

### **Infrastructure details**

- Department maintains a library with a good collection of prescribed & reference textbooks and practical manuals
- Internet facility in the department is extended to students and faculty
- Department has a classroom with ICT facility
- Well-equipped laboratories with more advanced and precision instruments

### **Laboratories (6)**

- Instrumentation Lab
- Electronics Lab
- Optics Lab
- Heat and Acoustics Lab
- General Physics Lab
- Computer Lab



**Instrumentation Lab**



**Electronics Lab**



**Optics Lab**



**Heat and Acoustics Lab**



**General Physics Lab**



**Computer Lab**



**Class Room with Smart Board**



### Department Activities – (2023-24)

S.No	Date	Event	Report
1.	14.07.2023	Guest Lecture	<b>Topic: “Temperature &amp; Flow Measurement”</b> by Ms.C.Aruna , HOD Physics & Electronics ,Aurora’s Degree & PG College, Hyderabad .
2.	11.10.2023	Guest Lecture	<b>Topic: “Fundamentals Of Nuclear Physics”</b> by Dr.M. Sreenath Reddy ,Assoc. Prof. in Physics ,OU.
3.	28.02.2024	National Science Day (NSD)-2024	<b>Inter-class Competitions-</b> Display of Science Projects                      Number of participants registered -21 Projects -10 <b>Judges for competitions:</b> 1 Ms.S.Prashnathi Asst.Prof. Dept. of Physics & Electronics SNVMV. 2 Ms.M.NagaLaxmi, Asst.Prof. Dept. of Computer Science , SNVMV.
4	30.03.2024	Power Consumption Awareness Program	Release of Power Consumption Sticker by Principal in Room No. 215. 50 Students participated

### Department Activities - ( 2022-23)

S. No	Date	Event	Report
1	05.09.2022	Teachers Day Celebrations	<b>1.</b> Release of Quarterly Newsletter Photon <b>2.</b> Department & Staff received academic excellence badges
2	07.11.2022	Sir C.V. Raman Birth Anniversary. Inter collegiate competitions for UG & PG students on “ <i>Design of Low–Cost Experiments</i> ” for High School level.	<b>1.</b> A total of 30 exhibits, explaining 23 concepts by various colleges <b>2.</b> Judges: Dr.P.Indira,assoc. Professor ,IPGDC for Women, Nampally, Hyd’ Dr.E.Rukmini Assoc.Professor, SNVMV <b>3 .</b> Prof.K.Karuna Sagar, HOD Physics, Osmania University (OU) was the Chief Guest for the event & distributed prizes to winners <b>4.</b> Release of Quarterly Newsletter Photon

3	<b>16.11.2022</b> to <b>20.12.2022</b>	Add-on course on “ <i>Know Your Electrical Appliances – Selection, Protection &amp; Safety</i> ”	<ol style="list-style-type: none"> <li>1. Number of students registered 78</li> <li>2. Classes commenced on 16-11-2022</li> <li>3. Students acquired knowledge about selection, protection &amp; safety of electric equipment</li> <li>4. certificates were given to all 64 qualified students</li> </ol>
4	<b>29.11.2022</b>	Field Trip To NRSC	<ol style="list-style-type: none"> <li>1. UG &amp; PG Physics students total of 47 with 4 faculty visited NRSC, Jeedimetla.</li> <li>2. The students interacted with the Scientists who explained topics related to launching of satellites</li> </ol>
5	<b>24.02.2023</b>	Inter collegiate Competitions National Science Day (NSD-2023)	<ol style="list-style-type: none"> <li>1. <b>PPT</b> <b>Topic:</b> “Applications of physics in Health care “ No of teams participated: <b>05</b> No. of participants :10</li> <li>2. <b>Poster Presentation</b> <b>Topic:</b> “Advances in physics for Welfare of Society “ No of teams participated: <b>09</b> No. of participants :17 Prizes for winners &amp; certificates for all participants were given.</li> </ol>
6	<b>28.02.2023</b>	National Science Day (NSD-2023) Celebrations	<ol style="list-style-type: none"> <li>1. Felicitations to retired Physics Faculty Dr.A.K Priyadarshini &amp; Mr.D.AnjiReddy</li> <li>2. Chief Guest Dr .Nagaratna,scientist –E Head.Indian Meteorological Department, Release of Quarterly Photon Newsletter Photon Chief Guest</li> </ol>

#### Department Activities- ( 2021-22)

S.No.	Date	Event	Report
1	<b>27.11.2021</b>	Sir C.V.Raman’s Birth Anniversary celebrations-2021	<p>Guest Lecture <b>Topic: “Role of Technology in Shaping our Future”</b> by Dr. Gopala Krishna Behra, Lead Enterprise Architect &amp; Distinguished Member of Technical Staff-Wipro.</p> <p>Release of Quarterly News Letter Photon. Audience present in auditorium: 400</p>
2	<b>22.02.2022</b>	Inter-collegiate Essay Competition	<p><b>Topic: “Role of Physics in Healthcare Industry”</b> No. of participants: 27</p>

3	26.02.2022	National Science Day (NSD)-2022	Guest Lecture: <b>topic: “Applications of Spectroscopy”</b> by Dr Usha Praveena, Assistant Professor in Physics & Electronics, St. Francis College, Hyderabad No. of participants: 100
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### Department Activities- (2020-21)

S.No	Date	Event	Report
1	07.11.2020	C.V.Raman’s Birth Anniversary Celebrations-2020	Online Guest Lecture <b>Topic: “Semi-Conductor Physics &amp; Fabrication”</b> Webinar by Dr V. Swarnalatha (Post Doctoral fellow), Dept. of Physics, IIT -Hyderabad Relayed on YouTube No. of views: 290
2	28.02.2021	National Science Day (NSD)-2021	Online Guest Lecture <b>Topic: “Laboratory Plasmas and Applications”</b> by Dr G.Mohana Rao (Prof. Emeritus), IISc, Bangalore Relayed on YouTube No. of views: 798 Release of Quarterly News Letter Photon

### Department Activities- (2019-20)

S.No.	Date	Event	Report
1	26.11.2019	Guest Lecture	<b>Topic: “Angular momentum and C.G. coefficients”</b> by Prof Yadagiri Reddy (Retd.), Department of Physics Osmania University
2	14.12.2019	Workshop	<b>Topic: “Teaching Models in Physics”</b> Resource person: Mr Sai Prasad School Assistant, Kotturu, RR District No. of participants: 50

### Department Activities- (2018-19)

S.No.	Date	Event	Report
1	21.02.2019	Two-day event SPARK-2K19 as part of National Science Day Celebrations-2019 in collaboration with TSCOST	<p><b>Day-1:</b> Inaugural Chief Guest for inaugural: Prof. Ravi Kumar, Member Secretary TSCOST Guest Lectures:</p> <ol style="list-style-type: none"> <li>1. Prof K.Venugopal Reddy, Department of Physics, Osmania University. Topic: "Evolution of Electronics"</li> <li>2. Dr Ravi Chandra, Scientist-F, ARCI, Hyderabad. Topic: "Importance of materials"</li> </ol>
		Inaugural on 21.02.2019 followed by competitions	<p>Inter-collegiate Competitions</p> <ol style="list-style-type: none"> <li>1. Poster Presentation: Topic: "Recent innovations in Physics and its relevance" Number of participants registered -65</li> <li>2. Electronic Projects Topic: Innovation and its usefulness Number of participants registered -65</li> </ol> <p>Judges for competitions:</p> <ol style="list-style-type: none"> <li>1. Dr Gopi Krishna, Associate Professor in Physics, A.V. College, Hyderabad</li> <li>2. Dr Srinath Reddy, Assistant Professor in Physics, Nizam College, Hyderabad</li> </ol>
2	22.02.2019	Valedictory	<p><b>Day-2:</b> Valedictory Chief Guest &amp; Key note Speaker: Professor Prasad, Head, Department of Physics, Osmania University Topic: "Raman Effect and its importance"</p>
3	18.04.2019	Field Visit to ARCI	<p>Fifty students from both UG &amp; PG, along with staff visited ARCI Work-Centres visited:</p> <ol style="list-style-type: none"> <li>1. Centre for Solar Energy Materials</li> <li>2. Centre for ceramic processing</li> <li>3. Centre for laser processing of materials</li> <li>4. Centre for sol-gel coatings</li> </ol>

## STUDENT ACHIEVEMENTS (2022-23)



### Students Participation in Power Consumption Awareness Initiative

on 23-04-2024



Ms. Nigasha Fatima (MSc IV-Sem) secured 4<sup>th</sup> place in inter collegiate tug of war

Competitions conducted by OU

27-01-2023



Ms. K.Santhoshini (MSc III-SEM) won 3<sup>rd</sup> prize in classical solo dance competitions  
*conducted by AIE -2023 ,Exhibition Grounds , Hyd.*

*10-01-2023*



Students Received Add on Course certificates

09- 01-2023.



Ms.Nigasha Fatima (MSc III-SEM ) represented as Judge from Telangana state for National Yogasana sports championship held at Mumbai  
20-12-2022



Outreach Programme – Students & Staff Visited Govt. Boys High School, Amberpet Hyd. & Govt. High School Nallakunta, Hyd.  
12-10-2022



Ms Nigasha Fatima (MSc III-Sem) won gold medal in 9<sup>th</sup> Telangana State interdistrict yogasana competitions held on 19<sup>th</sup> & 20<sup>th</sup> Nov 2022



(2021-22)



Ms. Nigasha Fatima (MSc – II SEM) Received Global Youth Award  
International Youth Day SUO, NCC -2022



Ms. Nigasha Fatima (MSc. I-Sem) Participated in 2<sup>nd</sup> National Yoga Sana Sport championship  
08-12-2021

(2019-20)



Ms.k. Phanisrividya(MSc IV-Sem) participated in physics E-Quiz organized by  
Keshav Memorial Institute of Commerce and Sciences



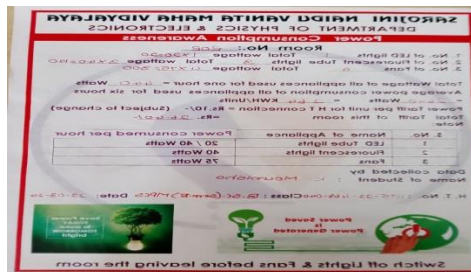
M.Sc. Phanisrividya (MSc IV-Sem) participated in physics E-Quiz organized by  
Department of Physics G.Pulla Reddy Degree & PG College.

# Photon

Dept. of Physics & Electronics, Publishes a Quarterly Newsletter titled “Photon” with a view to bringing updates on current advancements in Physics & Electronics .It includes a brief biography of renowned Scientists who made significant contributions in the field of Physics & Electronics. In addition , It includes information about prestigious National Scientific establishments where research facilities are available ,Guest Column, Physics News round up, and fun filled content such as puzzles , quizzes and anecdotes related to Physics & Electronics.

<https://drive.google.com/drive/folders/1DdbwWLWv8dnPkBaIMn13b1cnEoPTskpE>

2023-24



Awareness on Power Consumption on 30- 03-2024



## Interclass Competitions on the occasion of NSD-2024

On 28-02-2024



## Guest Lecture by Dr. Sreenath Reddy on " Fundamentals Of Nuclear Physics "

11-10-2023

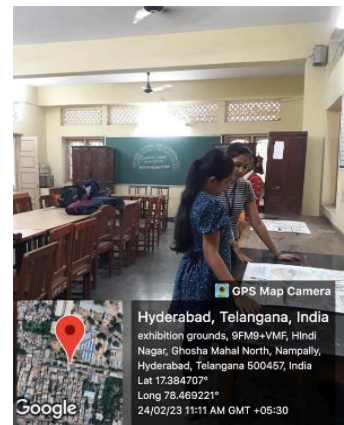
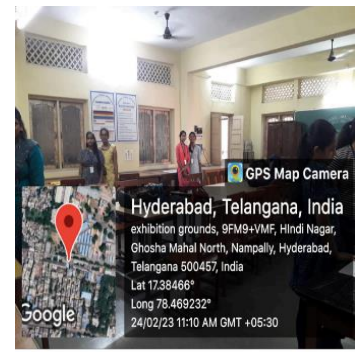
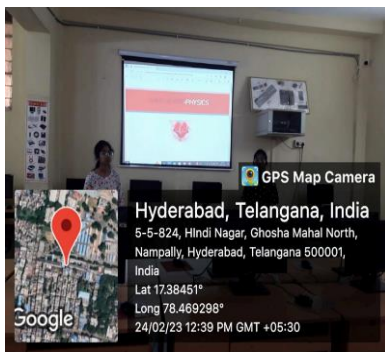


## Guest Lecture By Dr.C.Aruna, Head , Dept. of Physics & Electronics Aurora Degree & PG College on 14-07-2023

2022-23



Felicitations to retired faculty (Dr. AK Priyadarshini, Mr.D. Anji Reddy) on the occasion of Diamond Jubilee Celebrations on 14-03-23



Intercollegiate competitions on the occasion of NSD-2023  
On 24-02-2023



Field Trip to NRSC on 29-11-2022



Sir C.V Raman Birth Anniversary Celebrations, Inter Collegiate competitions

07-11-2022

**2021-22**



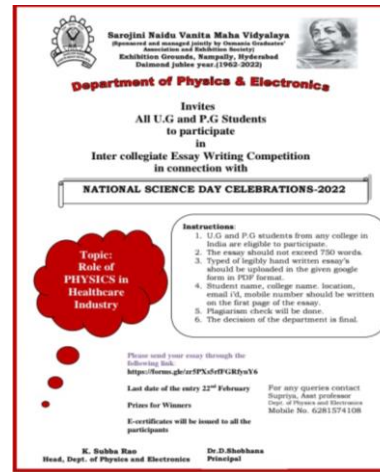
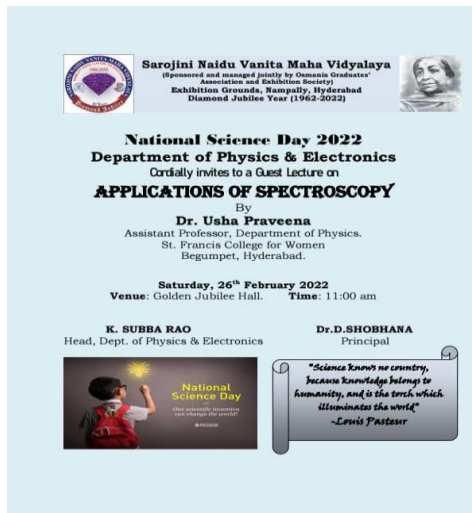
Prize winners of inter colleges essay writing competitions organised on account of NSD-2022



Ms. Fatima Rashee (M.Sc. I-Sem )won 3<sup>rd</sup> prize in intercollegiate essay writing Competitions conducted by SNVMV On NSD-2022



Presenting Bouquet to Chief Guest Dr.Usha Praveena, Assistant Professor St.Francis college for Women on 26-02-2022



## National Science Day - 2022



Field Visit to NIN to visit "Festival of Scope for All" , Science communication popularisation & its Extension on the occasion of Azadi Ka Amrit Mahostav on 25-02-2022



Guest Lecture by Dr.Gopala Krishna Behara on the Occasion of Sir C.V.Raman Birth Anniversary Celebrations -2021 on 27-11-2021





Release of Quarterly News Letter "Photon"

27-11-2021

2020-21



**Sarojini Naidu Vanita Maha Vidyalaya**  
(Sponsored & Managed jointly by Oriental Education, Association and Exhibition Society)  
Kadapa Road, Hyderabad, Telephone: 91-080-9525174  
NAAC Accredited (3<sup>rd</sup> Cycle)

Department of Physics & Electronics  
is organising a Lecture on the occasion of  
**National Science Day**  
28th February, 2021 at 11:30 AM

**"Laboratory Plasmas & Applications"**  
by  
Distinguished Speaker  
**G.Mohan Rao**  
Professor Emeritus  
Dept. of Instrumentation & Applied Physics  
Indian Institute of Science, Bangalore

Please click on the link to join the session  
<https://youtube/GwtrZGuMYY>

K. Subba Rao  
Head, Dept. of Physics & Electronics



Dr. D. Shobhana  
Principal




### Lecture on the occasion of National Science Day

798 views 2 yr ago ...more

 Sarojini Naidu Vanita Maha Vid... 1.98K 

Guest Lecture by Dr.Mohan Rao (Prof. Emeritus) – Dept. Of Instrumentation & Applied Physics , IISc Bangalore on 28-02-2021



**SAROJINI NAIDU VANITA MAHA VIDYALAYA**  
(Sponsored & Managed jointly by Oriental Education, Association and Exhibition Society)  
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Department of Physics & Electronics  
Cordially invites you to a Webinar on  
**Semiconductor Physics and Fabrication**

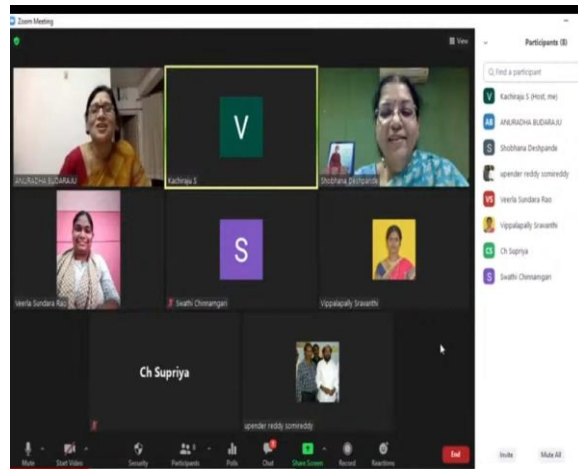
**Resource Person**  
**Dr. Veerla Swarnalatha**  
Post Doctoral Fellow  
IIT, Hyderabad  
(Alumna Of S N Vanita Maha Vidyalaya)

Organized on the occasion of  
**SIR C. V. Raman Birth Anniversary**  
On  
**7th November, 2020 at 4:00 P.M.**

Join us using YouTube Link  
[https://youtu.be/L\\_dQ\\_W\\_D570](https://youtu.be/L_dQ_W_D570)

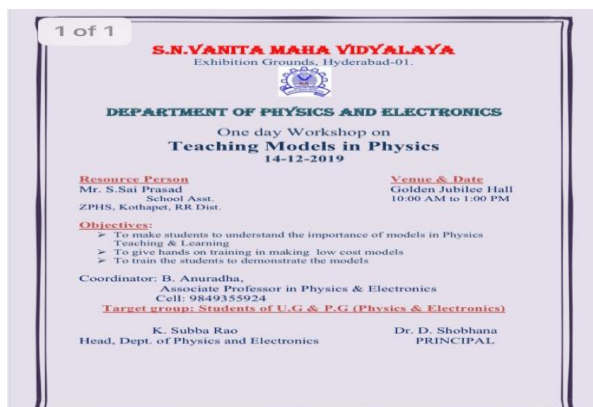
K. Subba Rao  
Head, Dept. of Physics & Electronics

Dr. D. Shobhana  
Principal



Guest Lecture by Dr.V,Swarnalatha (Post Doctoral Fellow) , Dept. of Physics  
IIT - Hyderabad (Alumnus of SNVMV) 07-11-2020

2019-20



Mr.S. Sai Prasad explaining the importance of Teaching Models

14-12-2019.



Hands on Experience in making Models on 14-12-2019

2018-19



Field Visit to ARCI on 18-04-2019.



Inauguration of SPARK 2K19 – Chief Guest Prof. Ravi Kumar Member Secretary  
TSCOST on 21-02-2019



Chief Guest interacting with the participants in intercollegiate competitions in ppt & Projects



Newspaper clippings pertaining to Inauguration of SPARK -2K19.



Guest Speaker Dr.Ravi Chandra Scientist F ARCI interacting with students

On 21-02-2019